

# Work Order ID 51424

August 24, 2009 10:15:03 AM



Page 1

Item ID: D6102-011

Accept



Setup Start



Revision ID: D

Stop



Item Name: Saddle Billet

Start Date: 8/31/09 Start Qty: 8.00



Cust Item ID:

Required Date: 9/09/09 Req'd Qty: 8.00



Customer:

Reference:

Approvals: Process Plan: 

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D6102

Rev D

100

0.00



PURCHASING

Purchasing

Memo

0.00

Purchasing

Issue P/O: 10241 (a) Description: Aluminum Billet (b) 6.500" x 8.250" x 2.500" thick (c) Tolerance on all dimensions is +0.06/0.00 (d) Grain direction along 6.500" length (e) Material: 6061-T6/T6511 (QQ-A-250/11 or QQ-A-200/8) (f) Material release certifi

u 09.08.24

110

Receive & Inspect for Damage & Mat'l Certs

0.00



Packaging

Memo

0.00

Packaging

Ensure material certification is attached

9/9/09 (8)

120

QC6- Inspect dimensions to drawing

0.00



QC

Memo

0.00

Quality Control

Check certification to Dwg D6102 for compliance

27 8/10/09

(8) φ

# Work Order ID 51424

August 24, 2009 10:15:03 AM

Page 2

Item ID: D6102-011

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Revision ID: D

Item Name: Saddle Billet

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Tooling:

Date:

Run Start

Stop

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130

Identify as per dwg & Stock Location: \_\_\_\_\_

0.00



Packaging

Memo

0.00

Packaging

140

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control



09/09/02

09/09/03

09.08.03

# Picklist Print

August 24, 2009 10:15:03 AM

Page 1

Work Order ID: 51424

Parent Item: D6102-011RevD

Parent Item Name: Saddle Billet




Comments:

Start Date: 8/31/09

Required Date: 9/09/09

Start Qty: 8.00

Required Qty: 8.00

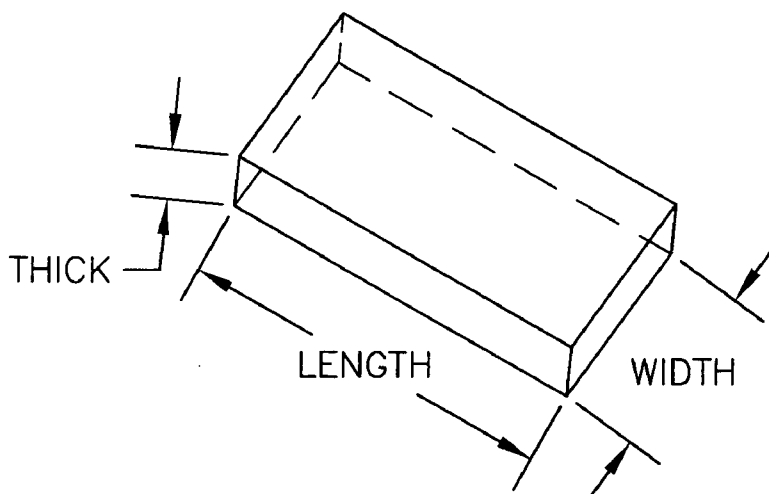
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D6102-011PRevD		Purchased	No			110	Each	0.0000	8.0000			
												
6061-T6 8.25x6.5x2.5												

*8/24/09* (8)



DESIGN #	DRAWN BY PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED CP	APPROVED #	DRAWING NO. D6102	Rev. D SHEET 1 OF 1
DATE 06.06.30		TITLE SADDLE BILLET, 6061	SCALE NTS
A	01.03.30	NEW ISSUE	
B	03.10.20	ADD D6102-005/-007/-009	
C	04.08.25	ADD D6102-010/-011	
D	06.06.30	ADD D6102-013	

## SPECIFICATION CONTROL DRAWING



W/O  
31424

RELEASED

06.08.15 #

PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.06/-0.00), AND GRAIN DIRECTION AS SHOWN.

TOLERANCE ON ALL DIMENSIONS IS +0.06/-0.00.

ALL DIMENSIONS ARE IN INCHES.

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6102-001	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	7.880	6.250	2.000	Along 7.880 Length
D6102-003	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	6.000	6.250	2.000	Along 6.000 Length
D6102-005	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	47.85	15.250	1.000	Along 47.85 Length
D6102-007	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	7.500	7.000	2.500	Along 7.500 Length
D6102-009	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	11.000	6.000	5.000	Along 11.000 Length
D6102-010	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	7.950	8.250	2.500	Along 7.950 Length
D6102-011	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	6.500	8.250	2.500	Along 6.500 Length
D6102-013	6061-T6/T651 (QQ-A-250/11 or QQ-A-200/8)	6.500	7.000	2.000	Along 6.500 Length

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# Magna Stainless

5775 Kieran St, Saint-Laurent, Quebec H4S 0A3  
Phone: (514) 339-1211 Watts: 1-800-363-6646 Fax: (514) 339-1105

## PACKING LIST

I016180

Page: 1 of 1

SOLD TO:  
DART AEROSPACE LTD  
1270 ABERDEEN STREET

SHIP TO:  
DART AEROSPACE LTD  
1270 ABERDEEN STREET

HAWKESBURY, ON  
K6A 1K7  
Contact: LINDA

HAWKESBURY, ON  
K6A 1K7  
Ship Terms: PREPAID

MTR:Y

SPECIAL INSTRUCTIONS

Currency		Sales Person	Customer Phone	Customer Fax	Customer PO	
CANADIAN DOLLARS		ERYCK BLAIS	(613) 632-5200	(613) 632-1053	PO10241	
Sales Order	Terms	Ship Via		Date Ordered	Date Required	Date Shipped
W017366	NET 30 DAYS	NIR:R-557065-1		08/24/09	08/31/09	09/02/09

Ordered	Back Ordered	Unit	Description	Bundle #	Heat #	Shipped
16		PC	ALUMINUM - LB 6061-T6 2 1/2" X 8.250 X 7.95			16
			16 LB / 16 PC	L030775	622276	16
8		PC	7.95 ON THE GRIAN 6061-T6 2 1/2" X 8.250 X 6.500			8
			4 LB / 4 PC	L030779	15268	4
			2 LB / 2 PC	L030780	15405	2
			2 LB / 2 PC	L030781	622270	2
			6.500 ON THE GRAIN			
skids: 2				Total	Weight:	24 LB

Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Signature: \_\_\_\_\_



## INSPECTION CERTIFICATE № 09.10502

EN 10204 - 3.1



Consigner: KAMENSK URALSKY METALLURGICAL WORKS				JOINT STOCK COMPANY						
5, Zavodskaya Str., Kamensk Uralsky, Sverdlovsk Region, 623405, Russia Tel: (3439) 39 52 22 Fax: (3439) 39 50 68										
Consignee:				Quantity: 3						
Contract number: N11234-S				Net Weight kg.: 2326						
Article number: P90420DK004				Specification No: N11234						
				Lot No: 1						
				Package No: 604571, 604572						
Description of Goods: Plates				Requirements on the Products:						
Grade of Product		Dimensions, inch/mm		Material conforms to quality of alloy: 6061 T651						
		2.5"X48.5"X144.5"		Product conforms to all requirements of						
		83.500X1231.9X3870.3		ASTM-B209-07 AMS-QQ-A250/11AMS4027M, This product conforms to European Union RoHS Directive 2002/95/EC						
Mechanical Properties										
The Condition of Tested Standards	Lot Number	Cast Number	Number of Tests	Tensile Strength		Yield Strength (0.2% offset)		Elongation %		Hardness, HB
				ksi	ksi	ksi	ksi	ksi	ksi	
				min	max	min	max	min	max	
Required				42.0		35.0		6.0		0.00
	822278	13-4851	4	46.6	45.6	41.4	42.0	11.5	13.5	
Chemical Composition, %										
Element	Silicon Si	Iron Fe	Copper Cu	Manganese Mn	Magnesium Mg	Chromium Cr	Nickel Ni	Zinc Zn	Titanium Ti	Zirconium Zr
Required	0.4-0.8	0.7	0.15-0.40	0.15	0.8-1.2	0.04-0.35	-	0.26	0.15	-
Contents	0.82	0.4	0.19	0.05	1.0	0.06	-	0.03	0.09	-
Element	Ti+Zr	Na	Tl+Sn	Bismuth Bi	Plumbum Pb	Mn+Cr	Ca	Other Elements		Al
								Each	Total	
Required	-	-	-	-	-	-	-	0.05	0.15	remainder
Contents	-	-	-	-	-	-	-	0.05	0.15	remainder
Other Tests										
Method	Macro-structure	Micro-structure	USI	Electro-conductivity	Contents H2 of metal: cm3/100gr		Mercury - Free			
Result	-	-	-	-	0.25		"Russia is country of metal and manufacture"			

On behalf:

KUMW, JSC.

Date:

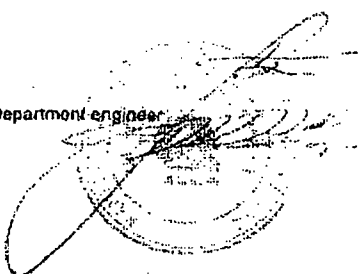
12.05.09

Inspector:

L.V. Belousova

Inspection Department engineer:

N.V. Alekhina







Inc 09-02-09

S90824DG004-1 MAGNA STAINLESS PO: P006478 Part #:

16.00PC

P006478 - 622276

P006478-15268

1, Zavodskaya Str. 347045 Belaya Kalitva Rostov region Russia		Open Joint Stock Company «Alcoa Metallurg Rus» INSPECTION CERTIFICATE EN 10204-3.1										№ 4737/0998 Date 04.07.08	
CUSTOMER Alcoa-Köfem Kft. Vesceci u. 1-15 Szekesfehervar HU- 8000 Hungary		CONTRACT № 002/2008		APPENDIX № 30810098		ORDER № AM 13211/P80506DK 005							
CONSIGNEE Newell street, Southington, CT 06489, USA		Description of Goods Aluminium Plates Alloy and Temper 6061 T651 Lot № 15268				Standard ASTM B 209-07, ANSI-H35.2-2006, AMS-QQ-A-250/11, AMS 4027M Dimension 2,5000*60,500*144,500 Net Weight 1964 kg 4330 lbs Qt. of packages pcs Gross Weight 2034 kg 4485 lbs							
MECHANICAL PROPERTIES		Ultimate Strength		Yield Strength		Elongation							
Units		KSI		KSI		El %							
Nominal requirements		min max		min max		min max							
Test results		42,0 46,3-46,7		35,0 39,4-40,1		6 13,4-14,0							
CHEMICAL COMPOSITION, %													
		Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Impurities		Al
Nominal requirements	min	0,40		0,15		0,8	0,04				Each	Total	
	max	0,80	0,70	0,40	0,15	1,2	0,35		0,25	0,15			
Test results	1-569	0,59	0,39	0,28	0,10	0,98	0,20		0,087	0,036			
Cast №													
<p>“melted &amp; manufactured in the Russian Federation”</p> <p>It is hereby certified that the above material is manufactured in compliance with the specified standards and meets the stipulated requirements</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div>  </div> <div> <p>Quality Control Inspector Чебола М.Р.</p>  </div> <div>  </div> </div>													

Формы ИКХДТ и ОП. 002/07

Inc 09-02-09

S90824DG004-2 MAGNA STAINLESS PO: P006478 Part #: 4.00PC

200 6478 - 15405

1, Zavodskaya Str. 347045 Belaya Kalitva Rostov region Russia		Open Joint Stock Company «Alcoa Metallurg Rus»										№ 5239/1168 Date 01.09.08			
		INSPECTION CERTIFICATE EN 10204-3.1													
<b>CUSTOMER</b> Alcoa-Köfem Kft. Verségi u. 1-15 Szekesfehervar HU- 8000 Hungary  <b>CONSIGNEE</b> Newell street, Southington, CT 06489, USA		<b>CONTRACT №</b> 002/2008 <b>APPENDIX №</b> 30810098 <b>ORDER №</b> AM 13211/P80506DK 005													
		<b>Description of Goods</b> Aluminium Plates <b>Standard</b> ASTM B 209-07, ANSI-H35.2-2006, AMS 4027M <b>Alloy and Temper</b> 6061 T651 <b>Dimension</b> 2,5000*60,500*144,500 <b>Lot №</b> 15405 <b>Net Weight</b> 982 kg 2165 lbs <b>Qt. of packages</b> pcs <b>Gross Weight</b> 1052 kg 2320 lbs													
		<b>MICHAICAL PROPERTIES</b>				<b>Ultimate Strength</b>		<b>Yield Streangth</b>		<b>Elongation</b>					
		<b>Units</b>				<b>KSI</b>		<b>KSI</b>		<b>ER %</b>					
		<b>Nominal requirements</b>		<b>min</b>		42,0		35,0		6					
		<b>max</b>													
<b>Test results</b>				46,2		38,4		14,0							
<b>CHEMICAL COMPOSITION, %</b>															
		Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti			<b>Impurities</b>		<b>A1</b>
											<b>Each</b>	<b>Total</b>			
<b>Nominal requirements</b>	<b>min</b>	0,40		0,15		0,8	0,04								
	<b>max</b>	0,80	0,70	0,40	0,15	1,2	0,35		0,25	0,15					
<b>Test results</b>	1-587	0,62	0,38	0,28	0,10	1,02	0,21		0,043	0,053					
<b>Cast №</b>															
<p>"melted &amp; manufactured in the Russian Federation"</p> <p>It is hereby certified that the above material is manufactured in compliance with the specified standards and meets the stipulated requirements</p>															



Quality Control Inspector      Авсневич

K-38  
19

*[Handwritten signature]*

OK  
09.09.08





## INSPECTION CERTIFICATE № 09.11210

EN 10204 - 3.1



Consigner: KAMENSK URALSKY METALLURGICAL WORKS JOINT STOCK COMPANY 5, Zavodskaya Str., Kamensk Ural'sky, Sverdlovsk Region, 623405, Russia Tel: (3439) 39 52 22 Fax: (3439) 39 50 68										
Consignee:					Quantity: 1					
Contract number: N11234-S					Net Weight, kg.: 1159					
Article number: P90420DK004					Specification №: N11234					
					Lot №: 1					
					Package №: 604827					
Description of Goods: Plates					Requirements on the Products:					
Grade of Product			Dimensions, inch/mm		Material conforms to quality of alloy: 6061 T651					
			2.5"X72.5"X144.5"		Product conforms to all requirements of: ASTM-B209-07, AMS-QQ-A250/11, AMS4027M. This product conforms to European Union RoHS Directive 2002/95/EC					
			63.500X1841.5X3670.3							
Mechanical Properties										
The Condition of Tested Standards	Lot Number	Cast Number	Number of Tests	Tensile Strength		Yield Strength (0.2% offset)		Elongation, %		Hardness, HB
				ksi	ksi	ksi	ksi	min	max	
				min	max	min	max	min	max	
Required				42.0	-	35.0	-	8.0	-	-
	022270	13-4800	4	47.0	47.8	43.0	43.8	9.5	12.0	-
Chemical Composition, %										
Element	Silicon Si	Iron Fe	Copper Cu	Manganese Mn	Magnesium Mg	Chromium Cr	Nickel Ni	Zinc Zn	Titanium Ti	Zirconium Zr
Required	0.4-0.8	0.7	0.15-0.40	0.15	0.8-1.2	0.04-0.35	-	0.25	0.15	-
Contents	0.83	0.3	0.17	0.05	1.0	0.08	-	0.04	0.09	-
Element	Tin Sn	Antimony Sb	Plumbum Pb	Manganese Mn	Chromium Cr	Copper Cu	Other Elements:		Al	
							Each	Total		
Required	-	-	-	-	-	-	0.05	0.15	remainder	
Contents	-	-	-	-	-	-	0.05	0.15	remainder	
Other Tests										
Method	Macro- structure	Micro- structure	USI	Electro- conductivity	Contents H2 of metals cm3/100gr	Mercury - Free "Russia is country of melt and manufacture"				
Result	-	-	-	-	0.18					

On behalf:

KUMW, JSC.

Date:

18.05.09

Inspector:

K.V. Ziryanova

Inspection Department engineer:

N.V. Alekhina

S  
09/07/02

P006478-122.270

Inc 09-02-09

S90824DG004-2 MAGNA STAINLESS PO: P006478 Part #:

2.00PC